

What Is Claimed Is:

1. A method for drying substrate is a method which houses substrates within a processing vessel, and dries a surface of each substrate by relatively lowering a fluid face of cleaning fluid within a processing vessel with respect to the substrate and by introducing the cleaning fluid within the processing vessel, the method comprising the steps of,

Introducing drying fluid under a liquid condition within the processing vessel, and

(Forming liquid drops of drying fluid and supplying the liquid drops onto the fluid face of the cleaning fluid using a nozzle)

2. A method for drying substrate as set forth in claim 1, wherein the method houses the substrates within the processing vessel in an inclined condition by a predetermined angle, and supplies the liquid drops of drying fluid using the nozzle in a direction which is the same direction of the inclined substrates.

3. A method for drying substrate as set forth in claim 1 or claim 2, wherein the method determines an introduction direction of the drying fluid into the processing vessel and determines an introduction initial speed of the drying fluid so as to expand the drying fluid up to the entire width of the substrates on the fluid surface of the cleaning fluid.

4. A method for drying substrate as set forth in one of claims 1 to 3, wherein the method supplies inert gas into the processing vessel following exhausting of the cleaning fluid from the processing vessel.

5. A method for drying substrate as set forth in claim 4, the method increases the supplying quantity of the drying fluid and/or the inert gas into the processing vessel following exhausting of the cleaning fluid from the processing vessel.

6. A method for drying substrate as set forth in one of claims 1 to 4, wherein the method changes supporting position of the substrates following exhausting of the cleaning fluid from the processing vessel.

7. A method for drying substrate as set forth in claim 4 or claim 5, wherein the method makes the interior of the processing vessel to be inert gas environment prior to exhausting of the cleaning fluid from the processing vessel.

8. A method for drying substrate as set forth in one of claims 1 to 7, wherein the method carries out the cleaning process and the following drying processing under a room temperature.

9. A method for drying substrate as set forth in one of claims 1 to 8, wherein the method flows the drying fluid by the pressure of inert gas which is supplied to the nozzle.

10. A device for drying substrate is a device which supports substrates within a processing vessel by supporting means, and dries a surface of each substrate by relatively lowering a fluid face of cleaning fluid within a processing vessel with respect to the substrate and by introducing the cleaning fluid within the processing vessel, the device comprising,

Drying fluid supplying means for introducing drying fluid under a liquid condition within the processing vessel, for forming liquid drops of drying fluid using a nozzle, and for supplying the liquid drops of drying fluid onto the fluid face of the cleaning fluid using a nozzle.

11. A device for drying substrate as set forth in claim 10, wherein the supporting means is the means for supporting the substrates within the processing vessel in an inclined condition by a predetermined angle, and the nozzle is a nozzle for supplying the liquid drops of drying fluid using the nozzle in a direction which is the same direction of the inclined substrates.

12. A device for drying substrate as set forth in claim 10 or claim 11, wherein the drying fluid supplying means is a means for determining an introduction direction of the drying fluid into the processing vessel and determines an introduction initial speed of the drying fluid so as to expand the drying fluid up to the entire width of the substrates on the fluid surface of the cleaning fluid.

13. A device for drying substrate as set forth in one of claims 10 to 12, further comprising inert gas supplying means for

supplying inert gas into the processing vessel following exhausting of the cleaning fluid from the processing vessel.

14. A device for drying substrate as set forth in claim 13, further comprising supplying quantity control means for increasing the supplying quantity of the drying fluid and/or the inert gas into the processing vessel following exhausting of the cleaning fluid from the processing vessel.

15. A device for drying substrate as set forth in one of claims 10 to 14, wherein the supporting means is a means having a cleaning fluid introduction groove which follows in lower ward direction with respect to the substrate supporting section.

16. A device for drying substrate as set forth in one of claims 10 to 15, wherein the supporting means is a pair of supporting means for selectively supporting different positions of the substrates which positions are different from one another, and further comprising supporting position control means for changing the supporting position of the substrates by the supporting means following exhausting of the cleaning fluid from the processing vessel.

17. A device for drying substrate as set forth in claim 13 or claim 14, further comprising environment determination means for making the interior of the processing vessel to be inert gas environment prior to exhausting of the cleaning fluid from the processing vessel.

18. A device for drying substrate as set forth in one of claims 10 to 13, and claims 15 to 17, further comprises nozzle position control means for moving the nozzle towards the substrates following exhausting of the cleaning fluid from the processing vessel.

19. A device for drying substrate as set forth in one of claims 10 to 18, further comprising circulation means for circulating the drying fluid when ejection is not carried out.

20. A device for drying substrate as set forth in one of claims 10 to 19, wherein a number of nozzles is determined in response to response to the size of the substrate and the pitch of the substrates.

21. A device for drying substrate as set forth in claims 10 to 20, wherein the nozzle has drying fluid ejection holes a number of which is greater than the number of the substrates by 1 which substrates are dried simultaneously.

22. A device for drying substrate as set forth in claims 10 to 21, further comprising inert gas supplying means for supplying inert gas to the nozzle so as to flow the drying fluid by the pressure of inert gas.